

# XGS2 Chassis Platform

## Flexible, Portable 2-Slot Chassis

Keysight test systems deliver the industry's most comprehensive solutions for the security, performance, functional, and conformance testing of networks, devices, and networked applications. The 2-slot XGS2 chassis platform provides highly flexible and portable chassis that powers load modules and test applications to create a Keysight test system. The XGS2 platform provides the foundation for a complete benchtop or rackmount test environment.



XGS2-SDL Chassis

The XGS2 chassis has a front-to-back airflow system to ensure that all of Keysight's highest-density load modules operate efficiently. A true modular construction maximizes the XGS2 platform's serviceability as each major system component is self-contained and field-replaceable with the fan assembly, synchronization module, power supply, and chassis controller module designed to be readily installed and removed.

The XGS2 platform chassis run the same applications and accept the same XM form factor (XMFF) load modules as their bigger XGS12 platform counterparts making it easy to integrate in existing setups. Keysight load modules are hot-swappable, ensuring a highly-scalable and multi-user testing environment.

## Highlights

- Compact 3RU form factor supports broad range of speeds — 400/100/50/40/25/10/1GE/100M
- Supports Keysight applications for performance, functional, conformance, and security testing
- 3 chassis models:
  - XGS2-SD standard performance
  - XGS2-SDL standard performance
  - XGS2-HSL high performance
- Ultra-high performance 3RU chassis assembly with new high-speed backplane supports high-bandwidth requirements
- Hot-swappable load modules can be changed without disrupting chassis operation
- Redundant power supply to ensure uninterrupted testing
- Field serviceable with modular power supplies, chassis controller, fan assembly, and synchronization modules
- Supports the K400 load module
- Supports the complete line of Novus load modules
- Supports Window 10 and IxOS Native modes

# Key Features

- **Windows 10 support:** The new XGS2-SD 940-0017 and XGS12-SD 940-0018 both support Windows 10, enabling software and security updates from Microsoft
- **Unified platform for Security and L2-7 testing:** Executes a wide array of security, data, routing, and bridging protocol emulation; and signaling, voice, video, and application testing
- **Extensive interface support:** From 100Mbps to 400Gbps
- **Hot-swap capability:** Actively swap load modules in and out of the test bed without disrupting ongoing test that is using installed modules
- **High performance:** High-speed backplane to support the high bandwidth requirements of large-scale application tests
- **Highly serviceable with modular components:**
  - Chassis controller module is a self-contained, field-replaceable unit that manages load modules, port configurations, and statistics reporting
  - Fan Module is a self-contained, field replaceable unit for temperature control
  - Power Supply Modules are self-contained, field replaceable units
  - Sync Module is self-contained and allows synchronizing the XGS2 chassis with other Keysight chassis
- **Highly-expandable:** STAR and Metronome Chassis Synchronization available for the XGS12 with these other Keysight chassis: XGS2-SD, XGS2-SDL, XGS2-HSL, XGS12-SD, XGS12-SDL, XGS12-HSL, AresONE, and Novus ONE PLUS
- **Precision timing:** Reference time synchronization with Metronome Timing System and
- GPS antenna

# Benefits

- **Lower cost:** Allows use of Keysight load modules in a small footprint chassis
- **Improved cooling:** A new design that uses front-to-back airflow like other devices installed in equipment rackmounts provides better cooling
- **Easy to service:** Field-replaceable modular chassis synchronization unit
- **Compatibility:** Support same Keysight applications and load modules as XGS12 platform which means no time spent on learning new UIs and APIs when introducing XGS2 in an existing test setup

# Targeted Users

- Enterprises and carriers validating DDoS defenses and optimizing Next-Generation Firewalls (NGFW), Intrusion Prevention Systems (IPS), and other security devices in their network infrastructure
- Enterprises, carriers, Internet Service Providers (ISPs), and Cloud Service Providers (CSPs) executing product qualification/acceptance testing or pre-deployment hot-staging of network equipment

- Engineering and Quality Assurance (QA) groups developing and testing Higher Speed Ethernet 400GE/100GE/50GE/40GE/25GE, and high-density 10GE/5GE/2.5GE/1GE/100M products
- Engineering and QA groups developing and testing high-performance Layer 2-7 devices
- Manufacturing groups executing production-quality and repetitive testing
- Technical marketing and sales for Proof of Concept (PoC), field, interoperability, and trade-show demonstrations
- Customer support departments troubleshooting customer issues
- Certification and interoperability labs providing third-party equipment test and validation

## Investment Protection

The XGS2 chassis platform delivers increased performance for test applications while at the same time maintaining compatibility with existing Keysight test systems. Test applications, configurations, and automation scripts are compatible, allowing easy migration of existing test beds to the new system without loss of capital investment.

## Application Support

The XGS2 chassis platforms support the following Keysight test applications:

- **BreakingPoint** (only on XGS2-HSL models with PerfectStorm Fusion load modules) for global visibility into emerging threats and applications, along with advance insight into the resiliency of an organization's IT infrastructure under operationally-relevant conditions and malicious attacks
- **IxLoad** for performance testing of content-aware devices (for example, load balancers, web servers, video servers) running protocols such as HTTP, FTP, SMTP, SIP, MPEG2 video, and many more
- **IxNetwork** for scalability and performance testing of routing, switching, security, data center and broadband access infrastructure solutions
- **IxExplorer** for granular, highly-flexible data-plane testing and analysis

# Specifications

| Features                          | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Slots</b>                      | 2 slots compatible with Keysight XM Form Factor (XMFF) load modules <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Size</b>                       | <ul style="list-style-type: none"> <li>17.5 in. width (19.0 in. with rackmount bracket installed) x 5.1 in. height x 26.5 in. depth</li> <li>3 rackmount units (3RU)</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| <b>Weight</b>                     | <ul style="list-style-type: none"> <li>XGS2-SD and XGS2-SDL weighs 53 lbs. (24 kg) <ul style="list-style-type: none"> <li>69.3 lbs. (31.5 kg) average shipping weight</li> </ul> </li> <li>XGS2-HSL each weighs 55 lbs. (25 kg) <ul style="list-style-type: none"> <li>71.3 lbs. (32.4 kg) average shipping weight</li> </ul> </li> </ul>                                                                                                                                                                             |
| <b>Power requirements</b>         | <ul style="list-style-type: none"> <li>Two 1100W single phase power supplies each rated 10A@110VAC; 60/50 Hz</li> <li>Two 1100W single phase power supplies each rated 5A@220VAC; 60/50 Hz</li> <li>Supports an additional power supply that can be purchased for redundancy</li> </ul>                                                                                                                                                                                                                               |
| <b>Operating system</b>           | <ul style="list-style-type: none"> <li>XGS2-SD 940-0017: Windows 10 Professional, 64-bit version</li> <li>XGS2-SDL 940-0013: Native IxOS</li> <li>XGS2-HSL 940-0014: Native IxOS</li> </ul>                                                                                                                                                                                                                                                                                                                           |
| <b>Chassis controller module</b>  | <ul style="list-style-type: none"> <li>Field-replaceable</li> <li>USB ports for connecting accessories</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Timing source</b>              | <ul style="list-style-type: none"> <li>Internal chassis clock for STAR synchronization or external Metronome synchronization</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Chassis timing connections</b> | <ul style="list-style-type: none"> <li>Sync In: single Sync In jack with a 4-pin RJ11</li> <li>Sync Out: four Sync Out jacks, each with a 4-pin RJ11</li> </ul>                                                                                                                                                                                                                                                                                                                                                       |
| <b>Connectors</b>                 | <ul style="list-style-type: none"> <li>Video: HD-DB15 Super VGA</li> <li>USB: Two Dual Type A, 4-pin jack connectors</li> <li>Management: 1000Base-T RJ45</li> <li>Serial: One RJ-45 RS-232 port</li> </ul>                                                                                                                                                                                                                                                                                                           |
| <b>Switches and indicators</b>    | <ul style="list-style-type: none"> <li>Power, Standby, Master, External Clock</li> <li>LCD screen with chassis status information</li> <li>Two paired LEDs next to each slot position indicating slot power and card ownership</li> </ul>                                                                                                                                                                                                                                                                             |
| <b>Temperature (ambient air)</b>  | <ul style="list-style-type: none"> <li>Operating: 41 °F to 104 °F (5 °C to 40 °C)</li> <li>Storage: 41 °F to 122 °F (5 °C to 50 °C)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Humidity (ambient air)</b>     | <ul style="list-style-type: none"> <li>Operating: 0 % to 85 %, non-condensing</li> <li>Storage: 0 % to 85 %, non-condensing</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Fans</b>                       | One field-replaceable fan-tray assembly that is easily installed and removed                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Noise</b>                      | <p>XGS2 chassis running at maximum fan speed capacity may produce noise levels up to 80 dB(A). This is measured per the GR-63- CORE, Issue 1, and paragraph 5.6.3 specification. The use of appropriate ear protection is recommended to protect against hearing impairment. Consult local health and safety regulations for recommended maximum exposure levels for noise and ear protection devices.</p> <p>Note: Fan speed is variable and adjusted based on present load and temperatures within the chassis.</p> |

1. For a complete list of all Keysight load modules supported by the XGS2 chassis platforms, refer to the Keysight Platform Reference Manual [here](#) and the [Product Compatibility Matrix](#) (product support login required).

| Features             | Details                                                                                                                                                                                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Safety</b>        | UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements) EN 60950-1:2006 + A1:2010 + A11:2009 + A12:2011 + A2:2013 IEC 60950-1:2005 (Second Edition); Am1:2009 + Am2:2013 |
| <b>EMC emissions</b> | EN 55032:2012/AC:2013, Class A, CFR 47, FCC Part 15B, Canada: ICES-003: Issue 6:2016, AS/NZ CISPR 32:2015 Class A                                                                                                                                                                                                                                             |
| <b>EMC immunity</b>  | EN 55024:2010, EN 61000-3-2:2011, EN 61000-3-3:2013, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11.                                                                                                                                                                                                                     |
| <b>Environmental</b> | The RoHS Directive 2011/65/EU, 2006/1907/EC (REACH)                                                                                                                                                                                                                                                                                                           |

## Product Ordering Information

### 940-0017

IXIA XGS2-SD, 2-SLOT STANDARD PERFORMANCE CHASSIS BUNDLE: This chassis bundle includes: Chassis frame assembly, Standard performance controller module with Windows 10, Fan assembly module, 2 power supply modules, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software.

### 940-0013

IXIA XGS2-SDL, 2-Slot Standard Performance Chassis BUNDLE. This chassis bundle includes: Rack mountable chassis frame assembly, Standard Performance Controller Module running Native IxOS operating system, Fan assembly module, 2 power supply modules, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software. NOTE: An optional redundant power supply (942-5005) can be purchased for increased system availability.

### 940-0014

IXIA XGS2-HSL, 2-SLOT High Speed Chassis BUNDLE. This chassis bundle includes: Chassis frame assembly, High Performance Controller Module running Native IxOS operating system, Fan assembly module, 2 Power supplies, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software. NOTE: An optional redundant power supply (942-5005) can be purchased for increased system availability.

### 942-5005

Chassis Spare Part, Optional Redundant Power Supply Module for XGS2 Platform models 940-0010 (XGS2-SD) or 940-0013 (XGS2-SDL) or 940-0014 (XGS2-HSL).

### 942-0029

IXIA Chassis Accessory, XGS2 Platform Hard Carrying Case with retractable handle and wheels. Designed for commercial and airline shipment for XGS2-SD (940-0010) and XGS2-HS (940-0012) chassis; includes capacity for one XGS2 chassis, one chassis controller.

## TAA Product Ordering Information

### 940-0017-T

IXIA TAA Compliant, XGS2-SD, 2-SLOT STANDARD PERFORMANCE CHASSIS BUNDLE: This chassis bundle includes: Chassis frame assembly, Standard performance controller module with Windows 10, Fan assembly module, 2 power supply modules, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software. NOTE: An optional redundant power supply (942-5005) can be purchased for increased system availability.

### 940-0013-T

IXIA TAA Compliant, XGS2-SDL, 2-Slot Standard Performance Chassis BUNDLE. This chassis bundle includes: Rack mountable chassis frame assembly, Standard Performance Controller Module running Native IxOS operating system, Fan assembly module, 2 power supply modules, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software. NOTE: An optional redundant power supply (942-5005) can be purchased for increased system availability.

### 940-0014-T

IXIA TAA Compliant, XGS2-HSL, 2-SLOT High Speed Chassis BUNDLE. This chassis bundle includes: Chassis frame assembly, High Performance Controller Module running Native IxOS operating system, Fan assembly module, 2 Power supplies, and Standard Star Topology Sync module. Includes installation of the latest production released version of the IxOS software. NOTE: An optional redundant power supply (942-5005) can be purchased for increased system availability.

## Upgrade Ordering Information

### 943-0016

Keysight IXOS AND WINDOWS 10 LTSC FIELD UPGRADE for Windows XGS products 940-0010, 940-0011, 940-0017, 940-0018 and Native-IxOS products 940-0013 and 940-0015. Includes Windows Certificate of Authenticity sticker and USB drive containing IxOS software and Windows 10 IOT Enterprise LTSC software. The XGS Chassis to be upgraded must have valid support contract, REQUIRES internet access to perform the upgrade and must be installed by Keysight representative.

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at [www.keysight.com](http://www.keysight.com).



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